We claim:

1. A method for measuring the oxidation-reduction potential of a solution comprising selecting an indicator dye wherein the dye changes electromagnetic absorbance over a range of oxidation-reduction potential.

2. The dye of claim 1 wherein said dye is selected from the group consisting of indigo carmine, thionine, potassium indigo trisulfonate, neutral red, potassium indigo tetrasulfonate, and nile blue.

3. The dye of claim 2 wherein said dye is indigo carmine.

4. The method of claim 1 wherein the wherein the electromagnetic absorbance occurs in the region of electromagnetic spectrum selected from a group consisting of visible, near infrared, infrared and far infrared.

5. The method of claim 4 wherein said electromagnetic absorbance occurs in the visible region.

6. The method of claim 1 wherein the electromagnetic absorbance measurement wavelength is selected from the group consisting of 450 nm, 850 m, 1310 nm and 1550 nm.

7. The method of claim 6 wherein said electromagnetic absorbance measurement wavelength is selected from the group consisting of 450 nm and 1550nm.

8. A method of immobilizing said dye of claim 1 comprising, embedding said dye in a matrix.

9. The method of claim 8 wherein said matrix is selected from the group consisting of gelatin and carrageenan.

10. A method of measuring the oxidation reduction potential of a solution, comprising;

selecting an indicator dye;

immobilizing said indicator dye on a matrix;

contacting the immobilized dye matrix with said solution; and

measuring the change in absorbance.

11. The method of claim 10 wherein said indicator dye is selected from the group consisting of indigo carmine, thionine, potassium indigo trisulfonate, neutral red, potassium indigo tetrasulfonate, and nile blue.

12. The method of claim 11 wherein said indicator dye is indigo carmine.

13. The method of claim 10 wherein said matrix is selected from the group consisting of gelatin and carrageenan.

14. The method of claim 10 wherein the wherein the absorbance occurs in the region of spectrum selected from a group consisting of visible, near infrared, infrared and far infrared.

15. The method of claim 14 wherein said absorbance occurs in the visible region.